DATASHEET - XH-303-15-A10-A00-2B

HMI Webpanel XH-303, capacitive multi-touch, 15.6" widescreen, 1366 x 768 Pixel, 1 x Ethernet 1000Base-T/100Base-TX/10Base-T, 1 x USB host 2.0

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Part no.	**XH-303-15-A10-A00-2B**
Catalog No.	**199884**

Delivery program

Product range		XH-303
Product range		HMI Webpanel
Function		Webpanel
Description		HMI Webpanel 24 V DC 15.6 Zoll TFTcolor 1366x768 px , Kapazitiv, Ethernet, USB 2.0
Common features of the model series		Ethernet interface USB Host
Display - Type		Color display, TFT
Touch-technology		Kapazitiver Multitouch
Number of colours		64 k Colours
Resolution	Pixel	1366 x 768
Portrait format		yes
Screen diagonal	Inch	15.6 widescreen
Model		Plastic enclosure and glass panel in plastic frame
Operating system		Linux
License certificates for onboard interfaces		Not required
built-in interfaces		1 x Ethernet 1000Base-T/100Base-TX/10Base-T 1 x USB host 2.0
Front type		Gehärtetes Glas im Kunststoff-Rahmen
Utilization		Flush mounting
Touch sensor		Multifinger Detection
Heat dissipation	W	15.3

Technical data

Display

Display - Type		Color display, TFT
Screen diagonal	Inch	15.6 widescreen
Resolution	Pixel	1366 x 768
Visible screen area	mm	344 x 194
Format		widescreen
Viewing range	[left/right/up/down] ° (Degrees)	85°/85°/80°/80°
Number of colours		64 k Colours
Contrast ratio (Normally)		Normally 500:1
Brightness	cd/m^2	Normally 400
Back-lighting		LED dimmable via software
Service life of back-lighting	h	Normally 50000

Operation

Technology		Capacitive Touch
Touch sensor		Multifinger Detection

System

Processor		ARM Cortex-A53, Quad-Core, 1.8 GHz
Internal memory		2 GB DDR4-RAM, 8 GByte eMMC
External memory		keiner
Cooling		Fanless CPU and system cooling, natural convection-based passive cooling

Engineering

Visualisation software			Nicht erforderlich. Web-Browser
Operating system			Linux

Interfaces, communication

built-in interfaces			1 x Ethernet 1000Base-T/100Base-TX/10Base-T 1 x USB host 2.0
USB Host			USB 2.0, not galvanically isolated
Ethernet			1000/100/10 Mbps

Power supply

Nominal voltage			24 V DC SELV (safety extra low voltage)
Rated operational voltage	U_e	V	24 DC (-20%/+25%)
permissible voltage			Effective: 19.2-30.0 V DC (rated operating voltage -20%/+25%) Absolute with ripple: 18,0-31,2 V DC Battery powered: 18,0-31,2 V DC (rated operating voltage -25%/+30%) 35 V DC for a duration of < 100 ms
Voltage dips		ms	≤ 10 ms from rated voltage (24 V DC) 5 ms from undervoltage (19.2 V DC)
Power consumption	$P_{max.}$	W	19.2
Power consumption		W	Normally 15.3
Note on power consumption			Grundgerät: 16.7 USB Slave to USB Host: 2.5 Total: 19,2
Heat dissipation		W	15.3
Note on heat dissipation			Heat dissipation with power consumption for 24 V, all ports and interfaces connected
Current consumption	I	A	max. 0.8 (24 V DC)
Protection against polarity reversal			yes
Type of fuse			Yes (fuse not accessible)
Potential isolation			no potential isolation

General

Housing material			Insulated material black
Front type			Gehärtetes Glas im Kunststoff-Rahmen
Dimensions (W x H x D)		mm	403 x 255 x 77 Toleranz ± 0.2
flush mounted			Clearance: W x H x D ≥ 30 mm (1.18") Inclination from vertical: ±45° (if using natural convection) Material thickness at the installation cutout: min. 2 mm (0.08"), max. 5 mm (0.2")
Weight		kg	3.1
Degree of protection (IEC/EN 60529, EN50178, VBG 4)			IP65 (at front), IP20 (at rear)
Approvals			
Approvals			CE
Applied standards and directives			
EMC			(in relation to CE) EN 61000-6-2 EN 61000-6-3
Mechanical shock resistance		g	according to IEC 60068-2-27
Vibration			according to IEC/EN 60068-2-6
RoHS			conform

Environmental conditions

Climatic environmental conditions			
Air pressure (operation)		hPa	795 - 1080
Temperature			
Storage / Transport	ϑ	°C	-20 - +60
Operating ambient temperature min.		°C	0
Operating ambient temperature max.		°C	+ 50
Relative humidity			
Condensation			Take appropriate measures to prevent condensation
Relative humidity			10 - 95%, non-condensing

Supply voltage U_{Aux}

Rated operational voltage	U_{Aux}	V	24 V DC (-20/+25%)
Max. current	I_{max}	A	0,8 (24 V DC)

Supply voltage U_{POW}

Supply voltage	U_{POW}	V	24 V DC (-20/+25%)
Rated current	I	A	0.8

Design verification as per IEC/EN 61439

Technical data for design verification			
Static heat dissipation, non-current-dependent	P_{vs}	W	15.3
Operating ambient temperature min.		°C	0
Operating ambient temperature max.		°C	50
Degree of Protection			IP65 (in the front as per EN 60529-1), IP20 (on rear as per EN 60529-1)
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Please enquire
10.2.3.1 Verification of thermal stability of enclosures			Please enquire
10.2.3.2 Verification of resistance of insulating materials to normal heat			Please enquire
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Please enquire
10.2.4 Resistance to ultra-violet (UV) radiation			Please enquire
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Please enquire
10.3 Degree of protection of ASSEMBLIES			Please enquire
10.4 Clearances and creepage distances			Please enquire
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 8.0

Programmable logic controllers PLC (EG000024) / Graphic panel (EC001412)			
Electric engineering, automation, process control engineering / Display and control component / Panel (HMI) / Graphic panel (HMI) (ecl@ss10.0.1-27-33-02-01 [AFX016003])			
Supply voltage AC 50 Hz		V	0 - 0
Supply voltage AC 60 Hz		V	0 - 0
Supply voltage DC		V	19.2 - 30
Voltage type of supply voltage			DC
Number of HW-interfaces industrial Ethernet			1
Number of interfaces PROFINET			0
Number of HW-interfaces RS-232			0
Number of HW-interfaces RS-422			0
Number of HW-interfaces RS-485			0
Number of HW-interfaces serial TTY			0
Number of HW-interfaces USB			1
Number of HW-interfaces parallel			0
Number of HW-interfaces Wireless			0
Number of HW-interfaces other			0

With SW interfaces		No
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for KNX		No
Supporting protocol for Modbus		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		No
Radio standard Bluetooth		No
Radio standard Wi-Fi 802.11		No
Radio standard GPRS		No
Radio standard GSM		No
Radio standard UMTS		No
IO link master		No
Type of display		TFT
With colour display		Yes
Number of colours of the display		65536
Number of grey-scales/blue-scales of display		0
Screen diagonal	inch	15.6
Number of pixels, horizontal		768
Number of pixels, vertical		1366
Useful project memory/user memory	kByte	2000000
With numeric keyboard		No
With alpha numeric keyboard		No
Number of function buttons, programmable		0
Number of buttons with LED		0
Number of system buttons		1
Touch technology		Capacitive multitouch
With message indication		No
With message system (incl. buffer and confirmation)		No
Process value representation (output) possible		No
Process default value (input) possible		No
With recipes		No
Number of password levels		1
With printer output		No
Number of online languages		2
Additional software components, loadable		No
Degree of protection (IP), front side		IP65
Degree of protection (NEMA), front side		4X
Operating temperature	°C	0 - 0

Rail mounting possible			No
Wall mounting/direct mounting			No
Suitable for safety functions			No
Width of the front		mm	401.7
Height of the front		mm	254.9
Built-in depth		mm	60.1